

VOLPYANSKIY, Lev Markovich; DUGINA, N.A., tekhn.red.

[Casting in shell molds] Lit'e v obolochkovye formy. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 66 p.
(Nauchno-populiarnaya biblioteka rabochego-liteishchika, no.9)
(MIRA 14:3)

(Shell molding (Founding))

VOLPYANSKIY, S.Ya.

GIROVSKIY, V.F., nauchnyy rabotnik; KANTORER, S.B., nauchnyy rabotnik; SHASS, M. Ye., nauchnyy rabotnik; D'YAKOVA, M.V., nauchnyy rabotnik; BABENKO, A.P.; VOLPYANSKIY, S.Ya.; MERZLYAK, G.H.

[Socialist competition for cost reduction in construction work] Sotsialisticheskoe sorevnovanie za snizhenie stoimosti stroitel'nykh rabot. [Avtorskii kollektiv: V.F.Girovskii i dr.] Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 55 p. (MLRA 6:7)

1. Moszhilstroy trest (for Babenko, Volpyanskiy, Merzlyak). 2. Kafedra Organizatsii i planirovaniya stroitel'nogo proizvodstva MIEI imeni S.Ordzhonikidze. 3. Moskovskiy inzhenerno-ekonomicheskii institut imeni S.Ordzhonikidze (for Girovskiy, Kantorer, Shass, and D'yakova). (Construction industry--Costs)

VOL-RABINOVICH, L., inzh.

Polystyrol adhesive. Mest.prom.1 khud.promys. 3 no.12:30 D '62.
(MIRA 16:2)

1. TSentral'naya laboratoriya upravleniya khimicheskoy
promyshlennosti Moskovskogo gorodskogo ispolnitel'nogo komiteta
Moskovskogo gorodskogo soveta deputatov trudyashchikhaya.
(Styrene polymers)

L 18955-63

EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFTTC/ASD Ps-4/Pc-4/Pr-4

RM/WW/MAY

ACCESSION NR: AP3006543

S/0191/63/000/009/0053/0055

AUTHOR: Vol-Rabinovich, L. L.

TITLE: Polymerizable adhesive for polystyrene plastics¹⁵

SOURCE: Plasticheskiye massy*, no. 9, 1963, 53-55

TOPIC TAGS: polystyrene, plastics, PK adhesive

ABSTRACT: A/polymerizable adhesive for polystyrene plastics was developed based on PK¹resin, a solution of hard polystyrene in styrene monomer. The adhesive is non-toxic, can be made in different viscosities by varying amount of polystyrene in monomer, and can be used with advantage over solvent adhesives such as dichlorethane. "The toxicological test was carried out under the supervision and by the immediate division of G. Ya. Kel'man." Orig. art. has: 1 figure.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 30Sep63

ENCL: 00

SUB CODE: MA

NO REF SOV: 001

OTHER: 001

Card 1/1

VOLRAT, A. [Volrate, A.]

Intestinal viruses carrier state in healthy children before and after vaccination with live poliomyelitis vaccine. Vestis Latv ak no.4:139-144 '62.

1. Institut mikrobiologii AN Latvyskoy SSR.

VOLRAT, A. [Volrate, A.]

Occurrence of enteroviruses in healthy children. Vestis Latv ak
no.3:97-102 '61.

1. Institut mikrobiologii AN Latvyskoy SSR.

*

KUKAYN, R. [Kukaine, R.]; INDULEN, M. [Indulēna, M.]; KANEL', I. [Kanele, I.];
KONDRASHOVA, M.; KALNINYA, B. [Kalnina, V.]; VOLRAT, A. [Volrate, A.];
FELDMAN, G. [Feldmane, G.]; NAGAYEVA, L.; PAVLOVA, M.; POPOVA, V.

Characteristics of the tuberculin tests in children inoculated
during early infancy with peroral BCG vaccine and live poliomyelitis
vaccine. Vestis Latv ak no.7:115-117 '62.

1. Institut mikrobiologii AN Latvyskoy SSR.

L 31205-66 EWT(1)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6022603

SOURCE CODE: CZ/0032/65/015/012/0938/0942

AUTHOR: Volenik, K.; Vlasakova, L.; Volrabova, H.; Lastovkova, O.

37
B

ORG: State Research Institute for the Economic Use of Material, Prague (Statni vyzkumny ustav ochrany materialu)

TITLE: Determining the actual surface area of metal samples from krypton adsorption

SOURCE: Strojirenstvi, v. 15, no. 12, 1965, 938-942

TOPIC TAGS: metal surface, krypton, gas adsorption, chemical laboratory apparatus

ABSTRACT: The article describes a method of measuring the actual surface area of metal samples by calculating it from the adsorption of krypton and also the laboratory equipment required for its application. Although the method is quite accurate and is practically the only one which can be used by plants, it has disadvantages, as the measurements take much time and the equipment is rather sophisticated. This paper was presented by Engineer M. Roubal. Orig. art. has: 8 figures and 1 table. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 11, 07 / SUBM DATE: none / ORIG REF: 002 / SOV REF: 001
OTH REF: 004

Card 1/1 BLG

UDC: 531.7.621.787: 546.294

0915

OC 221

18 8300

30593
Z/032/61/011/011/002/007
E112/E535

AUTHORS: Vlasáková, L., Volrábová, H. and Veleník, K.

TITLE: Initial stages of steel corrosion at elevated temperatures

PERIODICAL: Strojírnoství, v.11, no.11, 1961, 843-847

TEXT: The present paper is based on the theory of Cabrera and Mott (Ref.1: Rec.Progr. in Phys. 12, p.163) which proposes that for each metal and set of conditions there is a critical temperature at which a transition between two types of corrosion mechanisms can be observed. Above the critical temperature, the main factor affecting corrosion is diffusion of metal cations to the surface of the metal. The rate of oxidation can be expressed by the parabolic law:

$$x^2 = kt + a, \quad (1)$$

where x - thickness of layer, t - time, and k and a are constants. Therefore, a corrosion process which obeys the parabolic law will proceed without reaching a maximum and the layer thickness will increase with time. On the other hand, the corrosion mechanism below the critical temperature is determined by an

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30593

Initial stages of steel corrosion ... Z/032/61/011/011/002/005
E112/E535

electric double layer and is characterized by a fairly rapid initial growth of the layer, soon reaching a maximum limiting thickness. The limiting thickness is an inverse function of absolute temperature T , and can be represented graphically as a straight line, intersecting the abscissa at the critical temperature T_k . Determination of limiting thickness at various temperatures and extrapolation of the plots of inverse thickness against T will produce the critical temperature T_k at which the growth of the corrosion layer, affected merely by the electric double layer, will reach its maximum. Beyond the critical temperature corrosion will proceed by the ionic diffusion mechanism, without ever reaching a maximum. Therefore, determination of the critical temperature is based on an accurate measurement of the layer thickness at different temperatures and atmospheric conditions. A novel optical method is now described which permits the determination of layer thickness within an accuracy of a few Å. It is based on previous work of A. Vašíček (Ref. 4; Čs.Čas.fys., 4, p. 54) dealing with changes of the ellipticity of polarized light on being reflected from the surface of the studied objects. The layer thickness is computed from changes of ellipticity and the refractive indices

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30593

Initial stages of steel corrosion ... Z/032/61/011/011/002/005
E112/E535

of the metal and its oxide. The thickness of corrosion layers at the initial stages of corrosion at relatively low temperatures ranges from a few tens to a few hundreds of Å, and conventional methods have been found inadequate to measure the course of oxidation. The optical method permits following the growth of the corrosion layers with great accuracy from a knowledge of the optical constants of the material and ellipticity changes of polarized light. On the basis of the test results the critical temperatures of steels with varying amounts of B are tabulated. They range from 217°C for the Czech constructional steel 13 030 to 277°C for steels with very high (10%) B contents. Furthermore, the thickness of layers are plotted against corrosion times at different temperatures for seven different types of steel (Abscissa - time of oxidation, in hours; axis - thickness of layer, d, in Å). The new method permits examining the corrosion resistance of steel constructional materials in 60-80 hours, whereas conventional procedures require 500 to 1000 hours and produce only subjective evaluations. The method is recommended by the authors as a standard test. There are 11 figures, 2 tables and 6 references:

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Initial stages of steel corrosion ... ³⁰⁵⁹³ Z/032/61/011/011/002/005
E112/E535

4 Soviet-bloc and 2 non-Soviet-bloc. The English-language references read as follows: Ref.1 (quoted in test), Ref.6: Vernon, W.H.J., Calnan, E.A., Clews, C.J.B., Nurse, T.J., 1953, Proc.Roy. Soc.(A) 216, p.375.

ASSOCIATION: Státní výzkumný ústav ochrany materiálu, Praha
(State Research Institute for the Protection of Materials, Prague)

Fig.7.
(With
0.35% B)

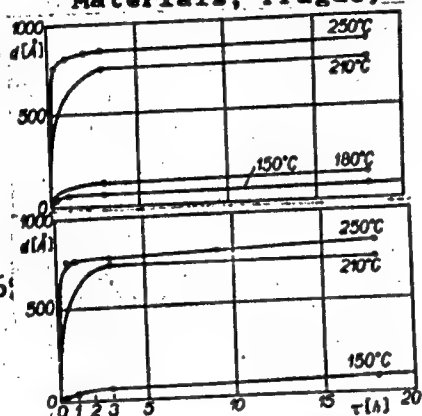
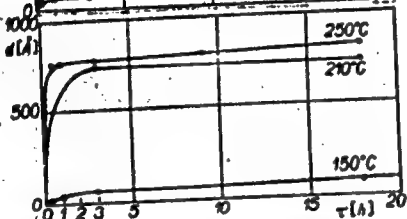


Fig.8.
(With 0.76%
B)



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Fig.9
(With
6% B)

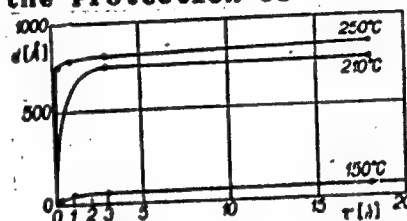
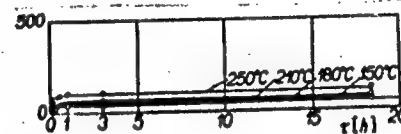


Fig.10
(With
10% B)



Initial stages of steel corrosion ... ³⁰⁵⁹³ Z/032/61/011/011/002/005
E112/E535

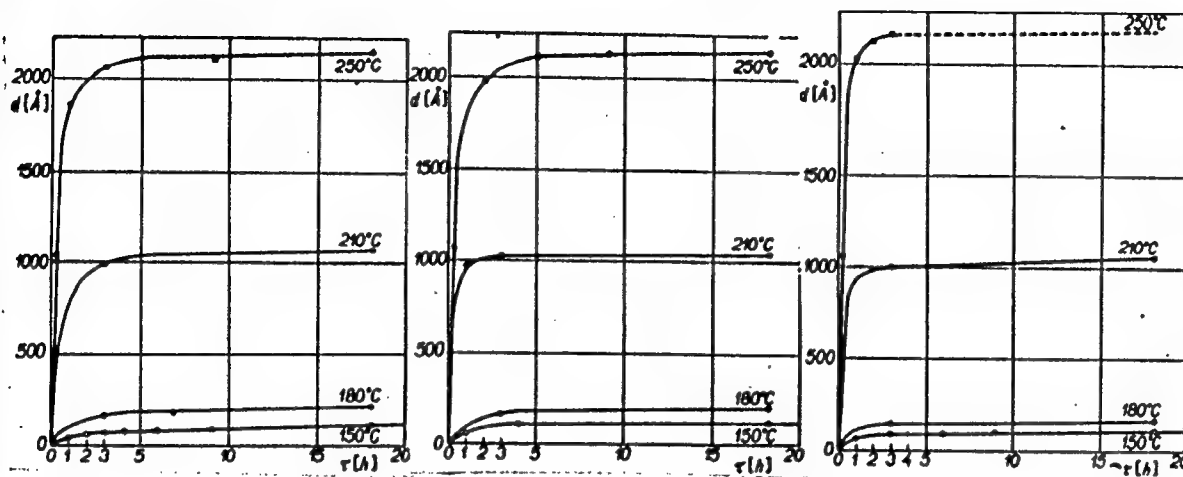


Fig. 3. Steel 13 030. Fig. 4. Steel 12 022 Fig. 5. Steel 15 110

Card 5/5

VOLRAT, A.[Volrate, A.] (Riga)

Occurrence of enteroviruses in healthy children. Vestis Latv ak
no.3:97-102 '61. (REAI 10:9)

1. Akademiya nauk Latviyskoy SSR, Institut mikrobiologii.

(Viruses) (Children in Latvia)

VOLRATE, A. (Riga)

Finding intestinal viruses in healthy children. Report I. (To be continued) Vestis Latv ak no.4:155-158 '60. (EEAI 10:7)

1. Latvijas PSR Zinatnu akademijs, Mikrobiologijas instituts.
(VIRUSES) (INTESTINES) (CHILDREN)

DAYON, M.I.; VOLYNSKIY, V.Kh.

Measurement of momenta of fast charged particles and investigation of nuclear reactions with energies in the range of

10^{-10} to 10^{-12} eV. Zhur.eksp.i teor.fiz. 37 no.4:906-909
'59. (MIRA 13:5)

1. Fizicheskiy institut imeni P.N.Lobedeva Akademii nauk
SSSR.

(Particles (Nuclear physics))
(Nuclear reactions)

VOL-RABINOVICH		PROCESSING AND PROPERTIES MOSS		B-I - 10	
<p>B</p> <p>Ethyl alcohol from wood waste. L. YERKHOVITSKY (Leningrad, 1933, J. No. 5, 18-22).—Increases in pressure up to 7:8 atm. and rise of temp. up to a certain limit favour fermentation of some of the monosaccharides. The optimum amount of H₂SO₄ was 2.7–5.2% of the dry mass. The introduction of catalysts (e.g., phosphates) for the biochemical process raised the EtOH yield, which was 18–19 litres per 100 kg. of dry mass.</p>					
<p>ASACLA METALLURGICAL LITERATURE CLASSIFICATION</p>		<p>1930M 50N10V</p>		<p>1930M 50N10V</p>	
<p>1930M 50N10V</p>		<p>1930M 50N10V</p>		<p>1930M 50N10V</p>	
<p>1930M 50N10V</p>		<p>1930M 50N10V</p>		<p>1930M 50N10V</p>	

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																										METALLURGICAL LITERATURE CLASSIFICATION																									
<p>ethyl alcohol from wood waste. L. Vol-Rabunovich. <i>Leokhmedskaya Prom.</i> 2, No. 5, 10'32(1963).— Increase in the pressure during the hydrolysis up to 7.5 atm. and in the temp. up to a certain limit favors the fermentation of some of the monosaccharides, accelerating the decompos. of pentoses and other reducing substances formed in the hydrolysis, which decompose with greater ease at elevated temp. than the dextrose. The amt. of the catalyst (in this case chl. H_2SO_4), is the basic factor, while the acidity of the soln. is of a minor influence on the yield of saccharides. Best results are obtained with a H_2SO_4 concn. of 2.7 to 5.3% of the dry fiber. The introduction of additional catalysts which favor the biochemical process, such as phosphates, raises the yield of $C_6H_{12}O_6$ from 7.5 to 10.11 l. per 100 kg. of dry fiber. The stepwise hydrolysis of the fiber causes a more complete action, raising the yield of saccharides to 44.0% of the wt. of the dry fiber; 30% of the saccharides is useful for fermentation, and this permits a yield of $C_6H_{12}O_6$ (95%) to 18-19 l. per 100 kg. of dry fiber. A. A. Bochtinsk.</p>																										<p>22</p>																									
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LO0826-66 EWT(1)/EWG(v)/FCC/EEC-1/EHA(h) GW

ACCESSION NR: AP5020685

UR/0033/65/042/004/0859/0861
523.745

AUTHOR: Vol'shakova, O. V.

TITLE: Intensity variations of the solar wind with the solar activity phase cycle,
from data of stable magnetic field variations

SOURCE: Astronomicheskiy zhurnal, v. 42, no. 4, 1965, 859-861

TOPIC TAGS: solar wind, magnetic field, solar activity

ABSTRACT: The seasonal changes in the pc4 amplitude were investigated so that the changes in the solar wind intensity as a function of the solar activity phase cycle could be estimated. The data covered a time interval of 8 years--from 1957 to 1964. This corresponds to intervals of high, medium, and low activity. It is shown that the mean amplitude of the type pc4 short-period variations of the earth's magnetic field corresponding to the solar wind during the quiet period ($K_p = 0$) remains constant throughout the 8 years of observation. It is concluded that the intensity of the solar wind from undisturbed solar regions does not change with the solar activity phase cycle. Orig. art. has: 1 figure.

Card 1/2

100826-66

ACCESSION NR: AP5020605

ASSOCIATION: Geofizicheskaya stantsiya, Borok Instituta fiziki Zemli, Akademii nauk
SSSR (Borok Geophysical Station, Institute of Terrestrial Physics, Academy of
Sciences, SSSR) 44.55

SUBMITTED: 29Mar65

ENCL: 00

SUB CODE: AA

NO REF SOV: 001

OTHER: 001

mlb
Card 2/2

L 9959-65 ENT(=)/CPR/T/ENT(b) . Ps-4 ASD(=)-J/RAEM(t) JD/MLK
 ACCESSION NR: AT4046863 B/0000/64/000/000/032P/0330

AUTHOR: Panin, V. Ye., Dudarev, Ye. F., Vol'shanina, M. A.

TITLE: Suzuki atmospheres and their importance in hardening of alloys

SOURCE: AN SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov. Issledovaniya
stal' i splavov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964

TOPIC TAGS: Suzuki atmosphere, metal strength, metal crystal, crystal structure,
 alpha solution, alloy hardening, ~~copper~~ aluminum alloy, copper zinc alloy, defect energy

ABSTRACT: It is well known that one of the factors contributing to the hardening of alloys in the alpha solid solution are the Suzuki atmospheres occurring in the defects of tensile dislocations. This lowers the dislocation mobility and increases the yield point. Since the Suzuki atmospheres vary slightly with temperature, they are very important at high temperatures. Several articles (H. Suzuki, P. A. Flinn) have dealt with Suzuki atmospheres. However, even the latest article by Suzuki does not define the relationship between the defect energy and Suzuki atmosphere concentration. The present article shows this relationship based on the latest publication by Suzuki for alloys with low defect energy. On the basis of phase equilibrium equations, the author evolves numerical equations for Cu-Al and Cu-Zn alloys with low defect energy. Fig. 1 of the Enclosure shows the concentration

Cord 1/4

L 9959-65

ACCESSION NR: AT4046863

for Cu-Zn alloys, while Fig. 2 shows the same for Cu-Al alloys. In previous publications it has been incorrectly suggested that the importance of Suzuki atmospheres increases as the solid solution concentration increases. Solid solutions disintegrate after low temperature annealing following deformation. An equation is evolved showing that the hardening depends on the defect energy for the given alloy. Precise calculations cannot as yet be made since several factors are still unknown, e.g. the defect energy with a Suzuki atmosphere. However, for small Suzuki atmospheres, the values may be found. For Cu + 38 at. % Zn the contribution of the Suzuki atmosphere in hardening does not exceed 1.5 kg/mm^2 . In conclusion, it is suggested that empirical curves of hardening should be constructed. Orig. art. has: 2 figures and 14 equations.

ASSOCIATION: none

SUBMITTED: 16Jun64

ENCL: 02

SUB CODE: MM

NO REF SOV: 004

OTHER: 005

Card

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L 9959-65

ACCESSION NR: AT4046863

ENCLOSURE: 01

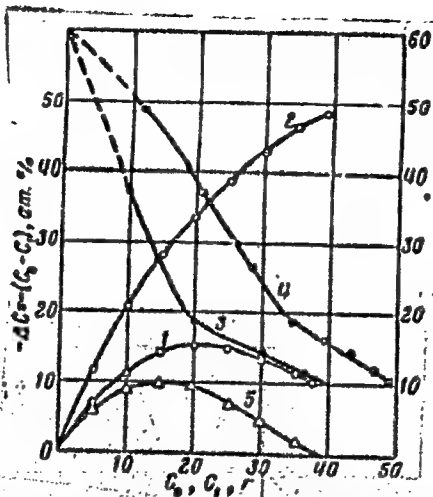


Fig. 1. Concentration relationships of $\Delta C, C_0, C_1, f(C_0), f(C_1)$ for Cu-Zn alloys ($T=293K$);

$$1 - (-\Delta C) = -(C_0 - C_1) = f(C_0); \quad 2 - C_1 = \varphi(C_1); \\ 3 - \gamma = \gamma(C_0); \quad 4 - \gamma = \gamma(C_1); \quad 5 - (-\Delta C) = f(C_0)$$

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L 9859-65

ACCESSION NR: AT4046863

ENCLOSURE: 02

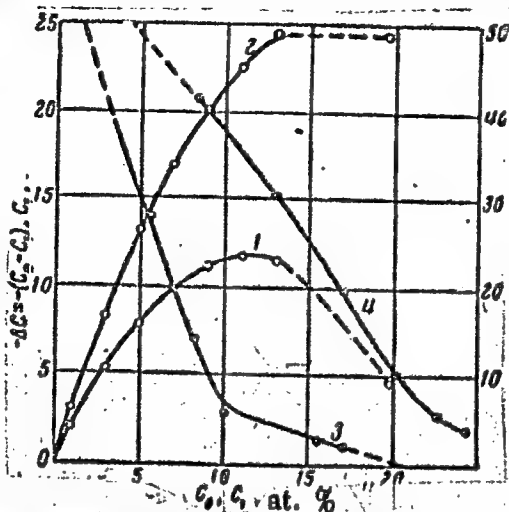


Fig. 2. Concentration relationships of ΔC , C_1 , $\gamma(C_0)$, $\gamma(C_1)$ for Cu-Al alloys (Curves numbered as in Fig. 1.)

4/4

Card

ALEKSANDROV, I.A.; SHEYNMAN, V.I.; KOGAN, Yu.S.; SHVETS, Ye.M.;
Prinimali uchastiye: VCI'SHANCK, Yu.Z.; LIZUNKOV, V.P.;
SEREGINA, A.P.; KAZAKOVA, L.I.; MUSATOVA, Z.D.

Hydrodynamics of plates made of S-shaped elements. Khim.
i tekhn. topl. i masel 6 no. 7: 38-44 J1 '61. (MIRA 14:6)

1. Giproneftemash.
(Plate towers)

YERTMAN, G.I.; VOL'SHANSKIY, M.I.

Production of feeds enriched with vitamin B₁₂ from distilling
wash (survey). Spirt.prom. 26 no.1:34-35 '60.

(MIRA 13:6)

(Distilling industries--By-products)
(Feeding and feeds)

FERTMAN, G.I.; VOL'SHANSKIY, M.I.

Fermenting action of fungal amylase on starch (from "Die Branntween-
wirtschaft," no.23, 1959). Spirt.prom. 26 no.6:45 '60.

(MIRA 13:11)

(Amylase)

(Starch)

FERTMAN, G.I.; VOL'SHANSKIY, M.I.

Using grain and potato residual wash as a culture
medium for microorganisms producing vitamin B₁₂. Spirt.
Spirt.prom. 26 no.4:34-37 '60. (MIRA 13:8)
(Cyanocobalamin)
(Bacteriology--Cultures and culture media)

VOL'SHANSKIY, M. I.; KOPYLOVA, A.M.

Out session of the Scientific Council of the Central
Scientific Research Institute of the Alcohol and the
Liqueur and Vodka Industries. Spirt.prom. 26 no.4:
44-45 '60. (MIRA 13:8)
(Distilling industries—Congresses)

VOL'SHANSKIY, M.I.; KOPYLOVA, A.M.

All-Union Seminar on new types of production. Spirt.
prom. 26 no.5:46 '60. (MIRA 13:7)
(Distilling industries)

VOL'SHANSKIY M.I.
FEITMAN, G.I.; VOL'SHANSKIY, M.I.

Production of ethyl alcohol in the U.S.A. Spirt. prom. 24 no.2:
34-35 '58. (MIRA 11:3)

(United States--Ethyl alcohol)

VOL'SHANSKIY, M.I.

FERTMAN, G.I.; VOL'SHANSKIY, M.I.

Electronic eyes inspect drinks (from "Electronic Industries and
Tele-Techn.," 58 no.2 1957). Spirt.prom. 23 no.8:31 '57.

(MIRA 11;1)

(Bottling) (Photoelectric cells)

FERTMAN, G. I.; VOL'SHANSKYI, M. I.

Apparatus for producing yeasts. Spirt. prom. 26 no.3:32-35 '60.
(MIRA 13:10)

(France--Yeast)

BEM, Rudolf [Böhm, Rudolf]; PLEVA, Vladimir; VOL'SHANSKIY, M.I.
[translator]; TIN'YAKOV, G.G., doktor biol. nauk, prof.
red.; TSIPERSON, A.L., red.

[Microscopy of meat and raw material of animal origin.
Translated from the Czech] Mikroskopiia miasa i syr'ia
zhivotnogo proiskhozhdeniia. Izd.2., perer. i dop. Mo-
skva, Pishchevaia promyshlennost', 1964. 334 p.
(MIRA 18:3)

VOLSHENSKIY, A.V., prof. doktor tekhn. nauk; TIRANOVA, T.M., inzh.; VINOGRADOV,
B.N., inzh.

Sulfate resistant cements from slag of electrophosphorous production.
Stroi.mat. 10 no.8:26-28 Ag '64. (MIRA 17:12)

02411-67 EWT(1)/T WR/GD/JXT

ACC NR: AT6022332

SOURCE CODE: UR/0000/66/000/000/0026/0033

AUTHOR: Shubarin, Yu. V.; Gorobets, N. N.; Voloshin, V. A.

ORG: None

TITLE: Effect which reflections in elliptically polarized antennas have on the polarization of their field of radiation

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya antennykh ustroystv. Doklady. Moscow, 1966, 26-33

TOPIC TAGS: circularly polarized antenna, electromagnetic wave reflection, antenna polarization

ABSTRACT: The authors consider reflections in elliptically polarized antennas and their effect on deviations in the polarization of the field radiated by the antenna from the theoretical value. Antennas with phasing sections in the feeder channel are considered. The phasing section is an anisotropic medium where the rate of propagation of electromagnetic waves depends on polarization and differs for the mutually perpendicular components. This section splits an incident linearly polarized wave into two orthogonally polarized components which are propagated at different velocities so that they are shifted in phase by a given angle at the output of the section resulting in an elliptically polarized field.

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L 02411-67

ACC NR: AT6022332

O

Formulas are given for determining the effect which reflections from the exciter aperture have on polarization of the radiated field and it is shown that the coefficient of ellipticity is considerably reduced by these reflections in the case of waveguide radiating elements. This effect is insignificant for horn radiators. Variations in the polarization of the field emitted by the antenna are also considered from the standpoint of reflector-exciter interaction. It is found that this type of interaction causes a considerable reduction in the coefficient of ellipticity for the entire antenna when the phasing section is adjusted for circular polarization in free space. This effect may be used if elliptical polarization is necessary in the center of the antenna aperture for producing a circularly polarized field at the principal maximum of antenna radiation since the directional diagram for the exciter is ordinarily not identical with respect to components and the amplitude distributions with respect to components differ at the aperture. Orig. art. has: 3 figures, 15 formulas.

SUB CODE: 20/ SUBM DATE: 22Mar66/ ORIG REF: 002

Cord 2/2 hs

GOLUB', N.S.; VOLSHINA, R.K.

Industrial accidents in building the Leningrad subway. Zdrav.
Ros. Feder. 6 no.1:21-25 Ja '62. (MIRA 15:3)

(LENINGRAD--SUBWAYS)
(LENINGRAD--BUILDING--ACCIDENTS)

PROCESSING AND PROPERTIES INDEX																																																																													
1ST AND 2ND GROUPS													3RD AND 4TH GROUPS																																																																
<p>CA</p> <p>115</p> <p>Action of gymnastic exercises on the gas exchange, heart, vascular system and blood. V. A. VOLSHINSKI, O. S. GANN AND A. N. KRUTOVNIKOV. <i>Russ. J. Physiol.</i> 13, 352-73 (1969). The exercises increase the gas exchange, pulse, vascular activity as measured by the blood pressure and the amt. of hemoglobin and leucocytes, and effect changes in the nature of the formed elements of the blood. The increase in the gas exchange is directly proportional to the musculature employed in each exercise. The further increased respiratory coeff. after cessation of exercise suggests a definite after effect.</p> <p>B. C. A</p>																																																																													
ASB-52A METALLURGICAL LITERATURE CLASSIFICATION																																																																													
<table border="1"> <thead> <tr> <th colspan="13">1ST AND 2ND GROUPS</th> <th colspan="13">3RD AND 4TH GROUPS</th> </tr> </thead> <tbody> <tr> <td colspan="13">[Punch holes]</td> <td colspan="13">[Punch holes]</td> </tr> </tbody> </table>																										1ST AND 2ND GROUPS													3RD AND 4TH GROUPS													[Punch holes]													[Punch holes]												
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131 AND 132 INDEX		133 AND 134 COVER	
PROCESSES AND PROPERTIES INDEX			
<p><i>Recovery of A-butane from air by silica gel.</i> <i>I. A. Yegorova, V. A. Gerasov, and E. A. Chumakova</i> <i>(Mikro. Khimichesk. 1964, No. 1, 1-12).—The SiO₂ gel</i> <i>was activated by heating in an electric furnace for</i> <i>3.5-4 hr; at 220-230°. The average absorption was</i> <i>4 wt.-% of C₄H₁₀ at 25° (max. 6%). with a speed of</i> <i>air passage of 0.005-0.1200 m. per sec. The gas</i> <i>was recovered (94-95 wt.-%) and the gel regener-</i> <i>ated, by heating to 200-220°, the regenerated gel</i> <i>being somewhat less adsorptive. (M. Ann. (c))</i></p>			
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>			
13000 STEEL		13000 STEEL	
13000 STEEL		13000 STEEL	

[illegible]

117 AND 118 SERIES										119 AND 120 SERIES									
PROCESSES AND PROPERTIES INDEX																			
BC										BZ1									
<p>Stability of hydrogen in pressure systems of 500-600° I. A. Vokhmin, M. K. Sazon, L. B. Kravtsov, and L. N. Shchegoleva (Soviet. Kuznetsk, 1968, No. 1, 3-12).—When $(CH_4/CH_2)_2-N_2$ mixtures (0.50-3:1) were passed at 500-600° through a tube (60-100 c.c./sq. cm. of tube) change (disorientation, production of H_2 and CH_4) was observed only at 600° and increased (0.7-77%) with decreasing velocity and proportion of N_2. Cf. Abn. (4).</p>																			
ASA-55A METALLURGICAL LITERATURE CLASSIFICATION																			
ROOM SYMBOL										ROOM SYMBOL									
SYMBOL										SYMBOL									
SYMBOL										SYMBOL									

5.C.L.

53 - spec

*Oxidation of synthetic rubbers. I. A. VOLSHINSKI
and L. I. LOGINOVA (Kau. huk. i Rezina, 1946,
No. 4-6, 41-7; Chem. Zentr., 1946, 11, 2300;
Rev. Gen. Caout., Doc. Anal., 1946, 22, 3).—
Sodium butadiene rubber absorbs oxygen at ordinary
temperature or at 100° without modification of its
mechanical properties. Other tests have been
carried out relating to rubber in solution in carbon
tetrachloride and to liquid rubber (Divinylol). The
addition of oleates of copper, manganese, and
cobalt accelerates oxidation. The rubber dis-
integrates and is transformed into a hard product
that can be pulverised and contains 10 to 15% of
combined oxygen.*

352121.0632331

1946

[illegible]

DYTNERSKIY, Yu.I.; ALEKSANDROV, I.A.; SHEYNMAN, V.I.; VOL'SHONOK, Yu.Z.;
KUPERMAN, A.M.

Investigating hydraulics and mass transfer regularities in columns with
corrugated downcomerless type plates. Khim.prom. no.1:70-74 Ja '64.
(MIRA 17:2)

SHEYNMAN, V.I.; ALEKSANDROV, I.A.; KOGAN, Yu.S.; VOL'SHONOK, Yu.Z.;
LIZUNKOV, V.P.; SHVETS, Ye.M.

New design of a plate for rectifications columns. Khim.i tekhn.
topl.i masel 7 no.5:54-60 My '62. (MIRA 15:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
neftyanogo mashinostroyeniya.
(Plate towers)

VOLSHOVA, V.A. i PUDTSOV, M.V.

24804. VOLSHOVA, V.A. i PUDTSOV, M.V. Sintez Khimuklidina. Zhurnal Obshchey

Khimii, 1949, Vyp 7, S. 1378-81.—Bibliogr: S. 1381

SO: Letopis' No. 33, 1949

ca

4

Capacity of the double layer of the mercury electrode
in dilute solutions of hydrochloric acid and of potassium
chloride. M. A. Vukobratovic and A. N. Frankin. *Compt. rend. Acad. Sci. Paris* 26, 618, 26, 1900 (in English),
cf. preceding abstr. A comparison of capacity curves for
the Hg electrode in 1 N, 0.1 N, 0.01 N and 0.001 N KCl
and in 0.001 N and 0.0001 N HCl solns., where capacity
is plotted against the electrode potential referred to a
normal calomel electrode, with those derived according to
Helmholtz's theory (cf. C. A. B. 770) indicated that the calcul.
capacity values have the same general form but are some-
what lower than those observed. This deviation shows
that there are also specific attractive forces between the
metallic surface and the ions which do not depend upon
the charge.

George Ayers

ASB-SEA DETAILING LITERATURE CLASSIFICATION

VOLSHTEYN, L.M.; MOGILEVKINA, M.F.

Chloroplatinites of monomethionine complexes of bivalent platinum.
Zhur. neorg. khim. 10 no.2:542-543 F '65. (MIRA 18:11)

1. Novosibirskiy gosudarstvennyy universitet. Submitted June
10, 1964.

VOLSHEYN, L.M.; KRYLOVA, L.F.; MOGILEVKINA, M.F.

Reaction of methionine with Reiset's second base chloride. Zhur.
neorg. khim. 10 no.9:1976-1979 S '65. (MIRA 18L10)

1. Novosibirskiy gosudarstvennyy universitet.

Complex compounds of bivalent platinum with glycine.
A. A. Ginzberg and L. M. Voshchikova, *Bull. Acad. Sci. Div. Chem. Sci., Math. Sci., Ser. Chem.*, 1957, No. 1, 3-23 (in German 21-4); cf. *C. A.* 50, 6849; 51, 3400.
Salts of the type $M_2[Pt(NH_2CH_2COO)_4]$ were prepd. by adding a excess of a neutral glycine soln. to K_2PtCl_4 .

In this manner $H_2Pt(NH_2CH_2COO)_4$, $AmPt(NH_2CH_2COO)_4$, and the corresponding NH_4 salts were obtained. Theoretical quantities of strong acids added to the above salts yield the complex acid $H_4Pt(NH_2CH_2COO)_4$ in the cryst. state. The latter acid exhibits marked ampholytic properties unlike those of amino acids. A series of salts containing the cation $[Pt(NH_2CH_2COOH)_4]^{2+}$ is described, among which are $[Pt(NH_2CH_2COOH)_4](NO_3)_2$, $[Pt(NH_2CH_2COOH)_4]Cl_2$, and $[Pt(NH_2CH_2COOH)_4]I_2$. These salts when treated with H_2O undergo a peculiar change in accord with the equation $[Pt(NH_2CH_2COOH)_4]X_2 + 2H_2O \rightarrow H_4Pt(NH_2CH_2COO)_4 + 2HX$. The previously cited bivalent cation behaves as a tetrabasic acid. The values of its acidic dissociations are approx. as follows: $K_1 = 4.0 \cdot 10^{-5}$, K_2 between $4.0 \cdot 10^{-5}$ and $4.7 \cdot 10^{-5}$, $K_3 = 4.0 \cdot 10^{-6}$ and the lower limit of K_4 is 10^{-6} . Aq. solns. of $H_4Pt(NH_2CH_2COO)_4$ on warming decomp. quantitatively into cis-diglycine (yield, cis-form 65-66% and trans-form 4-5%). On warming with KCl aq. solns. of increasing KCl content the acid undergoes pro-

gressive change with an increasing yield of trans-diglycine and a decreasing yield of the cis-form. The latter change is even more marked when HCl solns. are substituted for KCl . Thus in 0.5 N HCl , the yield of trans-diglycine is quant. With low HCl concns. the action of the latter is entirely catalytic. However, at higher acid concns. its catalytic effect ceases and the Cl^- ions the cause of the reaction product. A theoretical interpretation of the transformation of tetraglycine into diglycine derives is also included. W. A. Cook.

ASH-58-A DETAIL SUPPLEMENTAL LITERATURE CLASSIFICATION

BC

Common elements

107 AND 108 SERIES

PROPERTIES AND PROPERTIES INDEX

109 AND 110 SERIES

111 AND 112 SERIES

113 AND 114 SERIES

115 AND 116 SERIES

117 AND 118 SERIES

119 AND 120 SERIES

121 AND 122 SERIES

123 AND 124 SERIES

125 AND 126 SERIES

127 AND 128 SERIES

129 AND 130 SERIES

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673 AND 674 SERIES

675 AND 676 SERIES

677 AND 678 SERIES

679 AND 680 SERIES

681 AND 682 SERIES

683 AND 684 SERIES

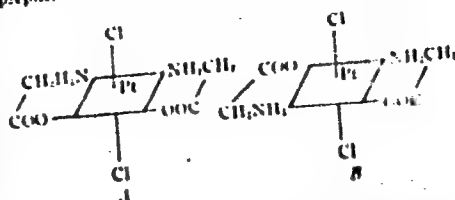
685 AND 686 SERIES

687 AND 688 SERIES</

Compounds of bivalent platinum with α -alanine.
A. A. Grinberg and L. M. Volshtein. *Dokl. akad. sci. U. S. S. R., Classe sci. Math. nat. Sci. 1937, 885-903* (in German 903-5); cf. *C. A.* 25, 3883; 27, 1290; 29, 6940; 31, 7351. Compds. first studied by Ley and Picken (*C. A.* 8, 207) included those of α -alanine and glycine. The Pt salt of alanine, PtAn_2 , is obtained in 85% theoretical yield by the reaction: $\text{K}_2\text{PtCl}_6 + 2\text{AnH} \rightarrow \text{PtAn}_2 + 2\text{KCl} + 2\text{HCl}$. The yield could be raised by concn. of filtrate but at the expense of purity. The trans isomer is formed; the cis isomer could not be obtained. PtAn_2 is obtained by adding K_2PtCl_6 to AnH soln. in NaOH , heating the mixt. and adding HCl , and KNO_3 to the $(\text{Pt}(\text{AnH})_2\text{Cl})_2$ formed. PtAn_2 is very hygroscopic and could not be obtained as a solid. The mixed salt of alanine and glycine, PtAnGl , is prepd. as follows: $\text{K}_2(\text{PtCl}_6\text{An}) + \text{GHI} \rightarrow \text{PtAnGl} + \text{KCl} + \text{HCl}$. GHI should be 4 times the theoretical quantity. Yield 75-80% theoretical. $\text{PtCl}_2(\text{AnH})_2$ and $\text{PtCl}_2(\text{AnH})(\text{GHI})$ are obtained at 90% theoretical yield by adding concd. HCl to PtAn_2 or PtAnGl . $(\text{Pt}(\text{S}:\text{C}(\text{NH}_2)_2)_2(\text{AnH})_2)(\text{GHI})\text{Cl}_2$ and $(\text{Pt}(\text{S}:\text{C}(\text{NH}_2)_2)_2(\text{AnH})_2)\text{Cl}_2$ are obtained at 65-70% theoretical yield by adding $\text{S}:\text{C}(\text{NH}_2)_2$ to $\text{PtCl}_2(\text{AnH})_2$ (GHI) or $\text{PtCl}_2(\text{AnH})_2$. They are very hygroscopic but after prolonged drying over P_2O_5 are found to contain $2\text{H}_2\text{O}$ of crystn. $\text{PtAn}(\text{NH}_3)_2$ and $\text{PtAnGl}(\text{NH}_3)_2$ are obtained by adding NH_3 to PtAn_2 or PtAnGl at 70-80% theoretical yield. Both are highly sol. in water. V. A. Kalkichevsk

PROCESSING AND PREPARATION NOTES

The action of glycine on potassium chloroplatinate. A. A. Grinberg and I. M. Volshchik. *Bull. Acad. Sci. Div. Chem. Sci. USSR* 1947, 351 (German 350-351). — Glycine (2.2 g.) in 30 cc. H₂O was treated, with heating, with 1.2 g. K₂PtCl₆. The mixt. was heated on a steam bath for 1.5 hrs. Immediately upon mixing, the soln. became almost red then faded to a greenish yellow. After the heating period the soln. was allowed to crystallize for several days, two fractions being collected. The 2 fractions had the same compn.: PtCl₂Cl₂(Cl) = H₂NCH₂COO. The total yield approached 45-50%, with approx. 10% being left in soln. The two fractions differ somewhat in their cryst. form and in chem. behavior. The 1st fraction (I) heated with concd. HCl dissolved very slowly on boiling with excess HCl, yielding on cooling yellow crystals of PtCl₂(H₂NCH₂COO)₂. The 2nd (II) fraction heated with concd. HCl dissolved rapidly and did not crystallize on cooling. Reduction of I by K₂oxalate was slow and yielded trans-PtCl₂, while II reacted rapidly yielding cis-PtCl₂. The cis structure (A) of II and the trans structure (B) of I were further confirmed by comparison with preps. made from samples known to be trans-PtCl₂ and cis-PtCl₂.



cis-PtCl₂. PtCl₂(H₂NCH₂COO)₂ is apparently formed by breaking of the glycine complex ring with liberation of the COOH group and introduction of Cl atoms into the complex at the points of attachment of the COO groups. The product is a dibasic acid, which can be titrated. Addn. of AgNO₃ gives a yellow ppt., apparently of Ag₂(PtCl₂Cl₂), which on treatment with HNO₃ yields AgCl and PtCl₂Cl₂. G. M. Kosolapoff

6

Processes and Properties Index

Dinuclear internal complex salt of chromium and glycine, and the products of its reaction with hydrochloric acid. L. M. Vishnick (Kazan Inst. Chem. Tech. Comp. 7762, 1962, 101, G.R.S.S.R. 48, 1058; Doklady Akad. Nauk S.S.S.R. 48, 111-114(1965). CrCl_2O_2 (II) (in which Cl represents $\text{H}_2\text{NCH}_2\text{CO}_2\text{H}$) was prepd. accord- ing to Chuganov and Serbin (C.A. 5, 1401). Treated with 1 mol. HCl it forms $[\text{CrCl}_2(\text{H}_2\text{O})_2]$, very hygroscopic, sol. in H_2O , insol. in EtOH . With 2 mols. HCl , 1 form $[\text{CrCl}_2(\text{HCl})(\text{H}_2\text{O})_2]$, green needles, very hygroscopic, sol. in H_2O and in EtOH . With 3 mols. HCl , 1 form $[\text{Cr}(\text{HCl})_3(\text{H}_2\text{O})_2]$, green, hygroscopic, and sol. in H_2O and EtOH . These reactions lead to the conclusion that I is a dinuclear complex corresponding to double the empirical formula.

Frank Coniet

ASH-55A METALLURGICAL LITERATURE CLASSIFICATION

Transition derivatives of chromium. L. M. Vashchenko (Leningrad Technol. Inst., J. Gen. Chem. U.S.S.R.), 17, 2946-53 (1947) (in Russian); cf. C. A. 41, 6442c. In the compd. $[\text{Cr}(\text{as})_3]$, where $\text{as} = \text{NH}_2\text{CH}_2\text{Me}(\text{CO})_2$, each as occupies 2 coordination places, being bound to Cr by both the CO_2 and the NH_2 group.



Action of dil. acids splits progressively 1, 2, and 3 $\text{Cr}-\text{OCO}$ bonds, resulting in a series of compds. $[\text{Cr}(\text{as})_3]$, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})]$, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_2]$, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$, where $\text{N} =$ as H_2N . This series represents a gradual transition from a "complete inner complex" with all 6 coordination places occupied by cycles to a monocyelic transamine (where asH is coordinated with Cr only through NH_2), over partial inner complexes. Transitions in this series are reversible, acids bringing about gradual opening of the as rings to asH , alkalis acting in the opposite direction. Transformation in the 1st direction was effected by short (10 min.) heating with the stoichiometric amt. of 0.1 N HCl , followed by evapn. to dryness; the compds., highly sol. in H_2O , are obtained in well-formed crystals and show the colors: $[\text{Cr}(\text{as})_3]$ rose, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})]$ cherry red, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_2]$ purple red, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$ green. In soln. in H_2O , Cl^- is displaced by H_2O , giving rise to $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$, $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_4]$, and $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_5]$. $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$ and $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_4]$ then, in an aq. soln. of $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$, originally light green, veins gradually to purple, particularly rapidly in dil. soln. and on heating in 1-2 min. on boiling. AgNO_3 ppt. AgCl rapidly from $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$ and, somewhat more slowly, from $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_4]$; however, from an aq. soln. of $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_5]$, Cl^- significant pptn. takes place only after preliminary baking. The latter monochloride in contact with H_2O , alk., is slowly transformed into a ppt. of $[\text{Cr}(\text{as})_2(\text{H}_2\text{O})_3]$; this does not take place with either the dichloride or the trichloride. The dry compds. withstand without decomposition prolonged heating to 150-160°.

ASB-51A DETAILUNCLASSIFIED LITERATURE CLASSIFICATION

5.2620
5(2)

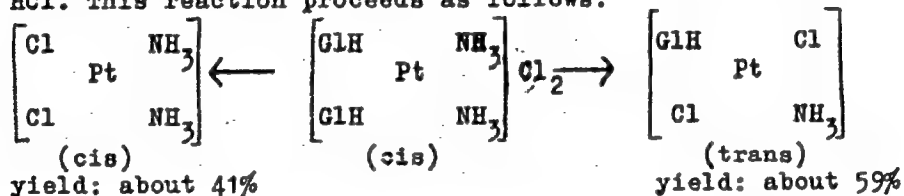
68105
SOV/78-5-1-7/45

AUTHORS: Volshiteyn, L. M., Volodina, I. O.

TITLE: New Data on the Complex Compounds of Bivalent Platinum With Glycocoll

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 1, pp 35 - 38 (USSR)

ABSTRACT: The cleavage of mixed tetrammine cis-[Pt(GlH)₂(NH₃)₂]Cl₂ under the action of HCl has not yet been investigated (GlH = glycocoll, Gl = glycocoll ion). The authors prepared cis-[Pt(GlH)₂(NH₃)₂]Cl₂ (already described by A. A. Grinberg and B. V. Ptitsyn (Ref 3)) from cis-[PtGl₂]. The first-mentioned compound was cleft with HCl. This reaction proceeds as follows:



Card 1/2

New Data on the Complex Compounds of Bivalent Platinum With Glycocoll 68105
SOV/78-5-1-7/45

Titration of the resulting trans- $[\text{Pt}(\text{GlyH})\text{NH}_3\text{Cl}_2]$ with KOH yielded the soluble salt $\text{K}[\text{PtGlyNH}_3\text{Cl}_2]$. If the solution of this salt is allowed to stand for 24 hours, the nonelectrolyte $\text{PtGlyNH}_3\text{Cl}$ is precipitated which has the cyclic structure

$$\begin{array}{c} \text{NH}_3 \quad \text{OCO} \\ \quad \quad \quad \diagdown \\ \text{Pt} \quad \quad \text{CH}_2 \\ \quad \quad \quad \diagup \\ \text{Cl} \quad \text{NH}_2 \end{array}$$
 A comparison of the Pt(II) complexes investigated earlier with α -aminobutyric acid and ϵ -aminocaproic acid shows that Pt and amino acid can be more easily separated in the case of α -amino acids than in the case of ϵ -amino acids. There are 14 references, 12 of which are Soviet.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskii institut im. F. E. Dzerzhinskogo (Dnepropetrovsk Institute of Chemical Technology imeni F. E. Dzerzhinskiy)

SUBMITTED: September 1, 1958
Card 2/2

VOLSHTEYN, L. M.

"Complex Compounds of Trivalent Chromium With the Simplest Amino Acids." Sub 14 Mar 51, Inst of General and Inorganic Chemistry imeni N. S. Kurnakov, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Dr. Chem. Sci.

VOLSHTEYN, L.M.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Inorganic Chemistry

① chem
A new class of complex compounds of chromium with
amino acids. L. M. Volshtein. *Bull. Acad. Sci. U.S.S.R.,*
Div. Chem. Sci. 1952, 269-77 (Engl. translation).—See
C.A. 46, 10038d. H. L. H

9-2-54
JHP

VOLSHTEYN, L.M.

Reaction of trivalent-chromium salts with glycol and alanine.
Izv.Sekt.plat.i biolog. no.27:20-32 '52. (MLRA 7:5)
(Chromium organic compounds) (Glycol) (Alanine)

VOLSHTEYN, L.M.

Action of acids on intracomplex compounds of trivalent chromium with
glycol and alanine. Izv.Sekt.plat. 1 blag.net. no.27:33-46 '52.
(MLRA 7:5)

(Chromium organic compounds) (Glycol) (Alanine)

VOLSHTEYN, L.M.; BAVRIN, A.P.

~~Electric conductivity of glycol complex chromium compounds. Izv. Sekt.~~
plat.i blag.met. no.27:47-61 '52. (MLRA 7:5)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR.
(Chromium organic compounds)

VOLSHTEYN, L.M.

U S S R

Two modifications of potassium diglycinooxalatochromate.
L. M. Volshstein and V. P. Molodtsova [Chem. Technol.
Ind. USSR, *Doklady Akad. Nauk S.S.S.R.*
93, 479-82(1983); cf. C.A. 46, 10036h. — Treatment of
concd. soln. of $[CrG(GH)_2O_2C_2O_4]$ or $[CrG(GH)_2C_2O_4]$,
(where G = glycine unit) with 0.8 mole KOH soln., boiling,
and evapn. gave a glassy mass; after soln. in 2-4 ml. cold
 H_2O it slowly deposited a pink ppt. of $K[CrG_2C_2O_4]$, which
was dried at 110-115°. When this was taken up in boiling
 H_2O , evapd. on a steam bath, the residue dried at 110-115°
and ground, there was formed a violet modification of the
same compn. In NH_4OH neither yields a ppt. of Cr hy-
droxide, nor does aq. soln. of $CaCl_2 \cdot AcONa$ give a Ca oxalate
ppt. in the cold; the latter forms slowly on boiling. Molar
cond. of the pink salt is 98.8 ohm⁻¹ cm.² at 0.001 M and
88.2 at 0.023, while for the violet form these are 105 and
92.4, resp. The pink salt is cryst. and anisotropic; the
violet form appears to be amorphous and glassy. The
violet form is readily sol. in H_2O ; the pink form slowly
changes into the violet in aq. soln. and is very much less sol.
Addn. of EtOH or Me_2CO to freshly prepd. aq. soln. of the
pink form immediately gives a ppt. of the original salt;
the violet form yields only a cloudy soln., from which oil
seps. slowly. Cryoscopic detn. of mol. wt. gave 310-18 for
the pink salt and the violet salt. Addn. of EtOH or Me_2CO
to concd. aq. soln. of the violet form yields a viscous oil,
which on drying reverts to the violet salt. The two forms
appear to be isomers with possibly different forms of ring
closure around the central Cr atom. O. M. Kozlovskii

VOLSHTEYN, L.M.

GRINBERG, A.A. (Leningrad); BABAYEVA, A.V. (Moscow); YATSIMIRSKIY, K.B. (Ivanovo); GOREMYKIN, V.I. (Moscow); BOLII, G.B. (Moscow); FIAL-KOV, Ya.A. (Kiyev); YAKSHIN, M.M. (Moscow); KEDROV, B.M. (Moscow); GEL'MAN, A.D. (Moscow); FEDOROV, I.A. (Moscow); MAKSIMYUK, Ya.A. (Leningrad); VOL'KENSHTeyN, M.V. (Leningrad); ZHDANOV, G.S. (Moscow); PTITSYN, B.V. (Leningrad); ABLOV, A.V. (Kishinev); VOLSHTEYN, L.M. (Dnepropetrovsk); TROITSKAYA, A.D. (Kazan'); KLOCHKO, M.A. (Moscow); BABAYEVA, A.V.; TRONEV, V.G. (Moscow); RUBINSHTeyN, A.M. (Moscow); CHERNYAYEV, I.I.; GRINBERG, A.A.; TANANAYEV, I.V.

Explanation of the transeffect. Izv.Sekt.plat.1 blag.met. no.28:
56-126 '54. (MLRA 7:9)

(Compounds, Complex) (Platinum)

VOLSHTEYN, L.M.; BAVRIN, A.P.; MOLOSHNOVA, V.P.

Viscosity of aqueous solutions of glyccoll chromium complex compounds.
(MLBA 7:9)
Izv.Sekt.plat.i blag.met. no.28:161-165 '54.
(Viscosity) (Glycine) (Chromium organic compounds) (Compounds,
Complex)

VOLSHTEYN, L. M.

USSR/Chemistry - Complex compounds

Card 1/1 Pub. 22 - 16/40

Authors : Volshteyn, L.M., and Motyagina, G.G.

Title : ~~Complex chromium - beta-aminopropionic acid compounds~~
: Complex chromium - beta-aminopropionic acid compounds

Periodical : Dok. AN SSSR 99/3, 399-402, Nov 21, 1954

Abstract : The derivation of numerous non-cyclic compounds of chromium with amino-acids is announced. Some of these non-cyclic compounds were obtained through direct addition of corresponding amino acids to chromic chloride. It was established that such compounds contain coordinated glycol or alanine molecules and are quite strong acids. The effect of alkalis on the separation of the protons from the coordinated amino acid molecules and origination of certain radicals, which close the cycle with the formation of internal complex salts, is discussed. The effect of alkali on non-cyclic compounds is explained. Five references: 4-USSR and 1-German (1906-1952).

Institution: The F.E. Dzerzhinskiy Chemical-Technological Institute, Dnepropetrovsk

Presented by: Academician I.I. Chernyaev, June 24, 1954

Volshteyn, L.M.

USSR/ Chemistry - Inorganic chemistry

Card 1/1 Pub. 116 - 5/29

Authors : Volshteyn, L. M., and Kocherga, N. M.

Title : Oxalate-dibioxalate-glycino-potassium chromate

Periodical : Ukr. khim. zhur. 21/6, 710-713, Dec 1955

Abstract : Investigation was made to determine the effect of KOH on a certain complex acid of the composition: $[\text{Cr}(\text{NH}_2\text{CH}_2\text{CO}_2\text{H})_2\text{H}_2\text{O}(\text{C}_2\text{O}_4\text{H})_3]$. The synthesis of an oxalate-dibioxalate-glycino-potassium chromate salt in a complex anion the Cr of which is bound with one glycol radical, one C_2O_4 radical and two $\text{C}_2\text{O}_4\text{H}$ radicals, is described. The chemical properties of the salt and its formula are listed. Five USSR references (1931-1955).

Institution : Dnepropetrovsk Chimicotechnological Inst. im. F. Ye. Dzerzhinskiy

Submitted : December 20, 1954

VOLSHTEYN, L.M.

3

|| Molecular weight of diglycinodisacochromium chloride
in aqueous solutions. L. M. Volshtein, *Izvest. Sektora
Platiny i Drug. Blagotob. Akad. Nauk S.S.S.R.* No. 29, 107-112 (1958).
Khim. Akad. Nauk S.S.S.R. No. 29, 107-112 (1958).
Cryoscopic measurements of freshly prep'd. aq. solns. (0.1-
0.5M) of $\text{Cr}[(\text{NH}_2\text{CH}_2\text{CO}_2)_2(\text{H}_2\text{O})_2]\text{Cl}$ revealed that the
compd. undergoes polymerization, followed by partial de-
polymerization. For example, 0.1M soln. gave the mol.
wt. of the salt at the start of the expt. as 358, and after one
month it changed to a const. value of 250. However, the
initial mol. wt. of 563 in the instance of 0.5M soln. de-
creased after one month and remained unchanged at 328.
A. P. Kotloby

A
ME

VOLSHTEYN, L. M.

VOLSHTEYN, L.M.

Closure of chromium-glycocoll cycles. Part 1. Izv.Sekt.plat.i blag.
met. no.31:101-106 '55. (MIRA 9:5)
(Glycine) (Chromium compounds)

VOLSHTEYN, L.H.

Closure of chromium-glycocol cycles. Part 2. Izv.Sekt.plat.1
blag.met. no.31:107-112 '55. (MLBA 9:5)
(Glycine) (Chromium compounds)

VOLSHTEYN, L.H.; MOGILEVSKINA, M.F.
APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9"

Effect of alkalies on chromium oxalatoglycinoglycine. Izv.Sekt.plat.
1 blag.met. no.31:113-119 '55. (MLBA 9:5)
(Chromium compounds) (Alkalies)

VOLSHTEYN, L.M.

Inner complex salt of bivalent platinum with 3-aminopropionic acid. L. M. Volshtein and M. F. Nogitskaya (V. I. Dzerzhinskii Chem. Technol. Inst., Dnepropetrovsk). Doklady Akad. Nauk S.S.S.R. 164, 418-21 (1955). — Heating 0.001 mole K_2PtCl_6 , 0.018 mole $H_2NCH_2CH_2CO_2H$, and 0.008 mole KOH as an 0.8M soln. 5 hrs. on a steam bath, adding 15 ml. concd. HCl, refluxing 10 min., and cooling yielded a ppt. of yellow $[Pt(H_2NCH_2CH_2CO_2H)_2Cl_2]$ (I), sparingly sol. in cold H_2O , acidic to methyl orange, and giving a turbidity with cold $AgNO_3$ and a ppt. on boiling. I can be titrated with base and phenolphthalein indicator. Titration of I with 0.1M KOH in the cold gave colorless $[Pt(H_2NCH_2CH_2CO_2)_2]$ (II), a hexamer. II in 0.001M soln. at 25° has a molar cond. of 0.1 ohm⁻¹sq. cm., confirming the inner complex structure of a nonelectrolyte. II with hot 1:1 HCl gave I. Both I and II were homogeneous. Thiourea treatment of I gave 87% colorless $[Pt(H_2NCH_2CH_2CO_2)_2(CSN_2H_4)]Cl_2 \cdot H_2O$ (III), indicating the trans-structure of I. I with hot concd. NH_4OH gave colorless $[Pt(H_2NCH_2CH_2CO_2)_2(NH_3)_2]$, which with concd. HCl formed colorless $[Pt(H_2NCH_2CH_2CO_2)_2(NH_3)_2]Cl_2$, readily titrating with $AgNO_3$; excess HCl gave 52% yellow $[Pt(NH_3)_2Cl_2]$, again confirming the trans-structure of I. Hence II also has the trans-structure. III titrated with 0.1M KOH gave colorless $[Pt(H_2NCH_2CH_2CO_2)_2(CSN_2H_4)]$, mol. cond. at 25° 2.6 ohm⁻¹sq. cm. at 25° in 0.0005M soln.

G. M. Kozlovskii

YOLSHTEYN, L. M.

Complex compounds of bivalent platinum with tyrosine.
L. M. Volshin and N. S. Velikanova (E. B. Dzerzhinskii
Chem-Tekhnol. Inst., Dnepropetrovsk). Zhur. Neorg.
Khim. 1, No. 1, 48-52 (1956).—Aq. KOH (22 g. mols, 0.32%)
and equiv. tyrosine were heated and treated with 3 mmols of
K₂PtCl₆ for 2 hrs. Excess undissolved tyrosine (approx.
0.5 g.) was filtered off. The filtrate was boiled and 2-3
drops of concd. HCl added. More amorphous tyrosine was
pptd. Further addn. of concd. HCl (2-3 ml.) pptd. an ap-
preciable quantity of dark-brown viscous mass (I), which was
allowed to settle. The decanted supernatant liquor was
filtered and treated with excess concd. HCl (1-6 ml.), and
boiled 2-3 min. On cooling, a yellow cryst. ppt. (II)
formed. After filtering, washing with H₂O, EtOH, and
Et₂O, it was shown by Pt and Cl analyses to correspond to
platinum dichloro-dityrosine, Cl₂Pt(NH₂CH(COO)CH₂
C₆H₄OH)₂, with coordinate bonding postulated between the
Pt and the two N atoms. The yield was equiv. to about
20% of the original K₂PtCl₆. On treating II with KOH in
the cold, or more rapidly hot, a ppt. of platinum dityrosine,
Pt(NH₂CH(COO)CH₂C₆H₄OH)₂, is formed. A ring struc-
ture is proposed in which the Pt is linked to the COO group
and (by coordinate linkage) to the NH₂ group. When 0.5
g. of II is dissolved in 5 ml. of concd. aq. NH₃, and boiled
for 2 min. and then cooled, platinum dityrosineammine,
(NH₃)₂Pt(NH₂CH(COO)CH₂C₆H₄OH)₂, is obtained. It may
consist of complex compds. of K with Pt, Cl, and tyrosine.

C. H. Kuchumov

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"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9

~~Volsteh, L. M.~~

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9"

disorder, const. of III was 2.4 x 10⁻³ M. The structures of Cr complexes with I are shown in Fig. 1.

VOLSHTEYN, L.M.

20-1-21/54

VOLSHTEYN, L.M., MOGILEVSKINA, M.F.
The Complex Compounds of Bivalent Platinum with Amino-ε-Capric Acids
(Kompleksnyye soyedineniya dvukhvalentnoy platiny s ε-aminoε-kaprinovoy kislotoy, Russian)

Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 99-101
(U.S.S.R.)

AUTHOR:
TITLE:

PERIODICAL:

ABSTRACT:

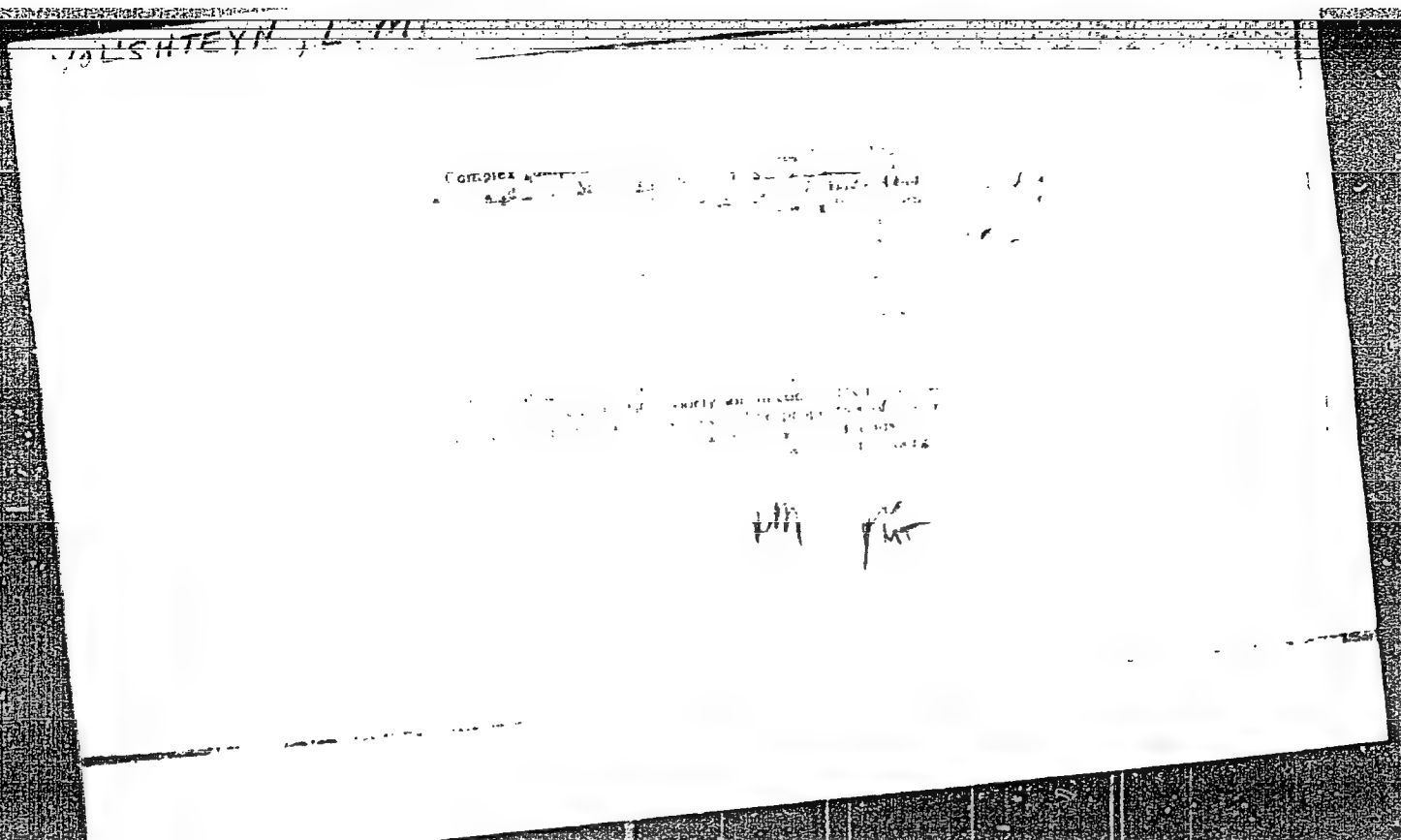
Recently the same authors described the compounds of the bivalent platinum (Pt²⁺) with β- and γ-aminoacids (with β-alanine and γ-aminobutyric acid - (H)).
In this connection it is of particular interest to note that the authors succeeded in obtaining Cis- and Trans-isomers of the compound [Pt(εH)₂Cl] and platinites with the isomeric (cis- and trans-) cations [Pt(εH₂)₂(NH₃)₂]²⁺.
The isomeric compounds:
a) Cis-dichloride: found % Pt 25.66; 36.82; 37.03; N 5.16
b) Trans-dichloride: found % Pt 36.86; 37.03; Cl 13.65; N 5.35
c) Platinites: (cis structure) found % Pt 47.09; 47.27;
(trans structure) found % Pt 47.09; 47.27;
N 5.70; H 0.25

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AVA:

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9

Card 1/2



AUTHOR:
TITLE:

VOLSHTEIN, L.M., MOGILEVSKAYA, M.F.
The Complex Compounds of Bivalent Platinum with Amino- ϵ -Caproic Acids
(Kompleksnyye soyedineniya dvukhvalentnoy platiny s ϵ -aminoheksanovoy
kislotoy, Russian)

PERIODICAL:

Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 99-101
{S.S.R.}

ABSTRACT:

Recently the same authors described the compounds of the bivalent platinum (Pt^{2+}) with β - and γ -aminoacids (with β -alanin and γ -H and γ -aminobutyric acid - γ H). In this connection it is of particular interest to note that the authors succeeded in obtaining Cis- and Trans-isomers of the compound $[Pt(\epsilon H)_2 Cl]$ and platinites with the isomeric (cis- and trans-) cations $[Pt(\epsilon H_2)_2 (NH_3)_2]^{2+}$.

The isomeric compounds:

- Cis-dichloride: found %: Pt 25,66; 36,82; 37,03; N 5,16
- Trans-dichloride: found %: Pt 36,86; 37,03; Cl 13,65; N 5,35
- Platinite: (cis structure) found %: Pt 47,09; 47,27; Cl 17,17; N 5,70; H 0,25

Card 1/2

20-1-27/64
The Complex Compounds of Bivalent Platinum with Aminocapric Acid.

d) Platinite (trans structure) found %: Pt 47,01; 47,17;
Cl 17,48; N 6,60; H 0,25.

ASSOCIATION: Not given

PRESENTED BY:

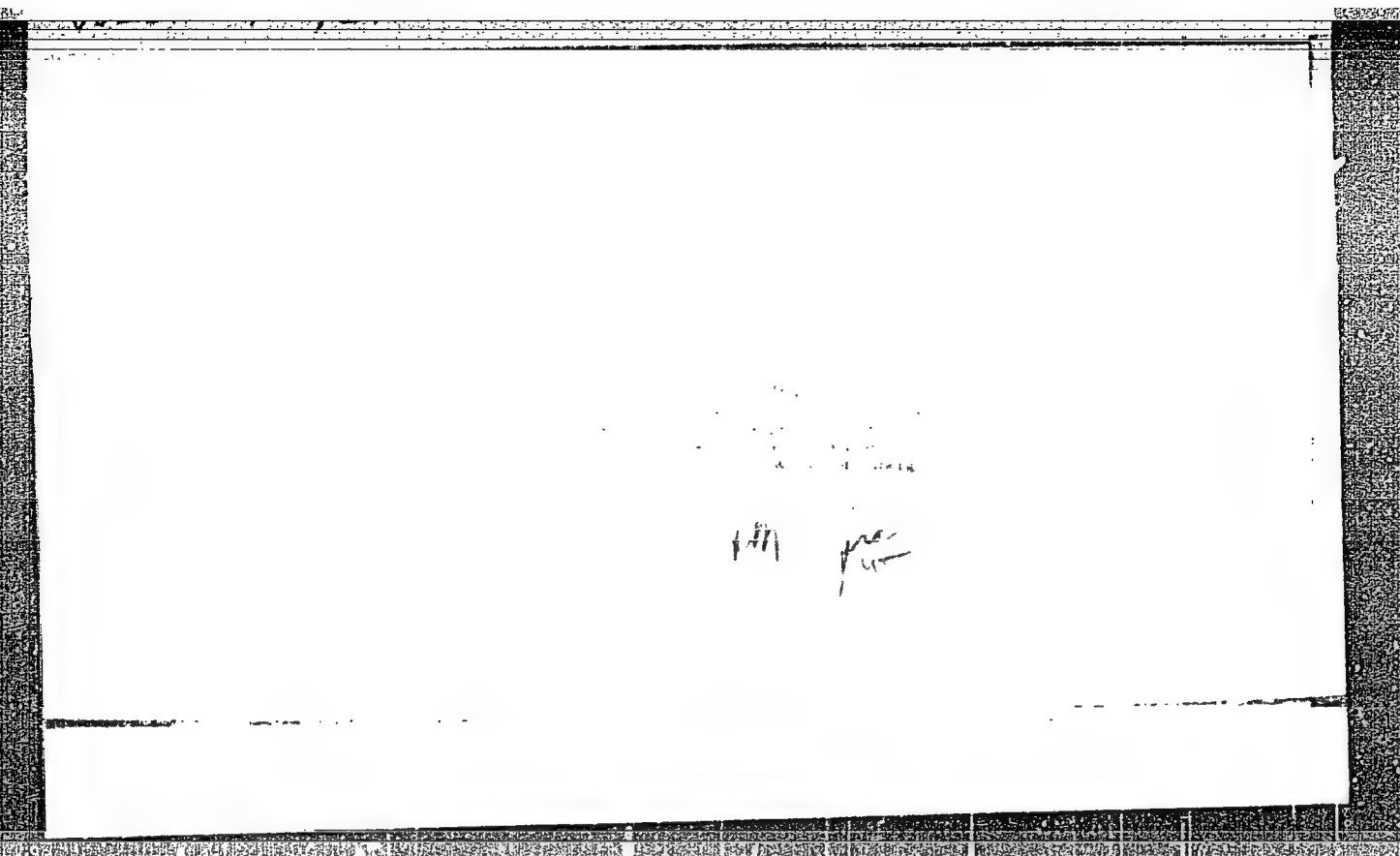
SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9



APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860720017-9"

VOLENTSEV, L.M.; MOGILEVSKAYA, N.F.

Two isomers of chloroacetylthiourea platocyl-type. Dokl. AN SSSR
163 no.6:1385-1388 Ag '65. (MIRA 18:8)

1. Novosibirskiy gosudarstvennyy universitet. Submitted February 4, 1965.

VOLSHTEYN, L.M., doktor khim. nauk, prof.

Boris Vladimirovich Ptitsyn; on his sixtieth birthday. Izv.
SO AN SSSR no.3 Ser. khim. nauk no.1:163-165 '63. (MIRA 16:8)

(Ptitsyn, Boris Vladimirovich, 1903-)

VOLSHTEYN, L.M.; ANOKHOVA, L.S.

Complex compounds of bivalent platinum with leucine. Zhur.neorg.khim.
8 no.9:2053-2058 S '63. (MIRA 16:10)

1. Novosibirskiy gosudarstvennyy universitet i Dnepropetrovskiy
khimiko-tekhnologicheskii institut.

VOLSHTEYN L.M.

VOISHTEYN, L.M.; VOLODINA, I.O.

Isomerization of inner complex salts of bivalent platinum with
amino acids. Zhur.neorg.khim. 7 no.12:2685-2688 D. '62.
(MIRA 16:2)

1. Novosibirskiy gosudarstvennyy universitet i Dnepropetrovskiy
khimiko-tekhnologicheskii institut imeni F.E.Dzerzhinskogo.
(Platinum compounds) (Isomerization) (Amino acids)

VOLSHTEYN, L.M.

"Basic principles of the chemistry of complex compounds" by
V.A.Golovina, I.A.Fedorov. Reviewed by L.M.Volshtein.
Zhur.neorg.khim. 8 no.1:261-262 Ja '63. (MIRA 16:5)
(Complex compounds) (Golovina, V.A.) (Fedorov, I.A.)

VOLSHTEYN, L.M.; MOGILEVKINA, M.F.

Complex compounds of bivalent platinum with methionine. Zhur.neorg.khim.
8 no.3:597-603 Mr '63. (MIRA 16:4)

1. Novosibirskiy gosudarstvennyy universitet i Dnepropetrovskiy
khimiko-tekhnologicheskii institut.
(Platinum compounds) (Methionine)

VOLSHTEYN, L.M.; ZEGZHDA, G.D.

Mutual transformation of isomers of platinum divalene.
Zhur.neorg.khim. 7 no.10:2315-2319 0 '62. (MIRA 15:10)

1. Dnepropertovskiy khimiko-tekhnologicheskoy institut imeni
F.E.Dzerzhinskogo.
(Platinum compounds) (Valine) (Isomerization)

L 13014-63 EWT(m)/BDS AFFTC/ASD/ESD-3 RM/JD
 ACCESSION NR: AP3002909 S/0289/63/000/001/0163/0165

AUTHOR: Volshcheyn, L. M. (Doctor of chemical sciences, Professor)

TITLE: Boris Vladimirovich Ptitsy*n

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1963, 163-165

TOPIC TAGS: scientific accomplishments, radioactive strontium, thermal decomposition, divalent platinum, potassium chloroplatinate, oxidation-reduction process, thiosulfate, tetrathionate ions, zirconium, niobium

ABSTRACT: Prof. B. V. Ptitsy*n, the division manager of the Institut neorganicheskoy khimii Sibirskogo otdeleniya AN (Institute of Inorganic Chemistry, Siberian Department, AN) has been honored on his 60th birthday for his numerous accomplishments for which he received several decorations. He developed the thermal decomposition of the ammoniates of divalent platinum and the reaction of potassium chloroplatinate with glycol. He prepared isomers of platinum diglycenes and proved their structure. He wrote a series of articles on the oxidation-reduction processes of platinum metals. This practical accomplishment also has a great theoretical value. He also investigated the reaction of various oxidizers

Card 1/2

L 13014-63

ACCESSION NR: AP3002909

on thiosulfate and tetrathionate ions. Furthermore, he investigated the oxidation processes of sulfur-containing compounds and studied in detail anions such as Cr sub 2 O sup 2-, sub 7 and Mn O sup -, sub 4. His second most important work is the investigation of the stability of the complexes in solutions. He developed the method for the determination of the instability constant of the complexes called the method of shifted equilibrium. He made a study of uranium and published numerous investigations of some complex compounds of zirconium and niobium. He introduced a method of removing radioactive strontium from organisms by its adsorption on hydroxylapatite crystals. In addition to all this he worked on many other scientific accomplishments.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 24Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

Card 2/2

VOLSHTEYN, L.M.; ZEGZHDA, G.D.

Complex compounds of bivalent platinum with valine. Zhur.neorg.khim.
7 no.7:1525-1529 JI '62. (MIRA 16.3)

1. Dnepropetrovskiy khimiko-tehnicheskoy institut imeni F.E.Dzerzhinskogo.
(Platinum compounds) (Valine)

VOLSHTEYN, L.M.; MOTYAGINA, G.G.

Interconversions of tetra-, tri-, and diglycine complexes
of bivalent platinum. Zhur.neorg.khim. 7 no.11:2495-2500
N '62. (MIRA 15:12)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut
imeni Dzerzhinskogo.

(Platinum compounds)
(Glycine)

VOLSHTEYN, L.M.

Boris Vladimirovich Ptitsyn; on his 60th birthday. Zhur.ob.khin.
33 no.3:717-719 Mr '63. (MIRA 16:3)
(Ptitsyn, Boris Vladimirovich, 1903-)

VOLSHTEYN, L.M.; VOLODINA, I.O.

Tetraalanine complexes of bivalent platinum. *Zhur.neorg.khim.*
7 no.2:252-257 F '62. (MIRA 15:3)

1. Dnepropetrovskiy khimiko-tekhnologicheskoy institut imeni
Dzerzhinskogo.

(Platinum compounds) (Alanine)

VOLSHTEYN, I.M.; MOGILEVKINA, M.F.; MOTYAGINA, G.G.

Conversion of cis-diglycineplatinum into a trans isomer. Zhur.
neorg.khim. 6 no.5:1105-1109 My '61. (MIRA 14:4)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut imeni
F.E.Dzerzhinskogo.

(Platinum compounds)

VOLSHEYN, L.M.; MOGILEVKINA, M.F.

Inner complex compounds of bivalent platinum with methionine.
Dokl. AN SSSR 142 no.6:1305-1307 F '62. (MIRA 15:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut im.
F.E.Dzerzhinskogo. Predstavleno akademikom A.A.Grinbergom.
(Platinum compounds)
(Methionine)

VOLSHTEYN, L.M.; MOGILEVKINA, M.F.; VELIKANOV, M.S.

New compounds of bivalent platinum with amino acids. Trudy
DKHTI no.6:3-11 '58 (MIRA 13:11)
(Platinum compounds) (Amino acids)

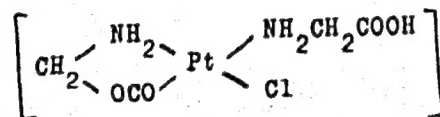
S/078/60/005/009/022/040/XX
B017/B058

AUTHORS: Volshiteyn, L. M. and Volodina, I. O.

TITLE: Complex Compounds of Bivalent Platinum With Glycocoll

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 9,
pp. 1948 - 1953

TEXT: The action of HCl on cis- $[Pt(NH_2CH_2CO_2H)_2]$ proceeds gradually. Splitting of the glycocoll ring under the formation of $[PtGl(GlH)Cl]$ (Gl = glycocoll radical) occurs in the first stage. This compound reacts further with HCl under the formation of $[Pt(GlH)_2Cl_2]$. The compound



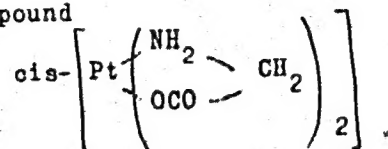
was synthesized with a yield of approximately 70%. Ammonia splits the

Card 1/3

Complex Compounds of Bivalent
Platinum With Glycocol

S/078/60/005/009/022/040/XX
B017/B058

glycocol ring of the compound



and a NH_3 group takes the place of the carboxyl group. The preparation of $[\text{PtGl}_2(\text{NH}_3)_2]$ is described in detail. This compound crystallizes prismatically, and is dissolved in water at 25°C up to about 1.7%. It is a non-electrolyte. It can easily be solved in acid under the formation of an electrolyte of the form $[\text{Pt}(\text{GlH})_2(\text{NH}_3)_2]\text{X}_2$, and by neutralization with alkali liquors it can be retransformed into the non-electrolyte $[\text{PtGl}_2(\text{NH}_3)_2]$. An attempt to prepare pure $[\text{PtGl}_2\text{NH}_3]$ with only one split glycocol ring failed. There are 1 figure, 1 table, and 2 Soviet references.

Card 2/3